



**WATER SAMPLING AND REPORTING SERVICES**

**COLUMBIA PUBLIC SCHOOLS  
MILL CREEK ELEMENTARY SCHOOL  
2200 WEST NIFONG BOULEVARD  
COLUMBIA, MISSOURI**

Prepared for:

**COLUMBIA PUBLIC SCHOOLS  
COLUMBIA, MISSOURI**

Prepared by:

**GEOTECHNOLOGY, LLC, DBA UES  
ST. LOUIS, MISSOURI**

Date:

**SEPTEMBER 16, 2024**

Project No.:

**J044517.01**

**SAFETY  
TEAMWORK  
RESPONSIVENESS  
INTEGRITY  
VALUE  
EXCELLENCE**



September 16, 2024

Mr. David Seamon  
District Project Manager  
Columbia Public Schools  
1818 West Worley Street  
Columbia, Missouri 65203

Re: Water Sampling and Reporting Services  
Columbia Public Schools  
Mill Creek Elementary School  
2200 West Nifong Boulevard  
Columbia, Missouri  
Project No. J044517.01

Dear Mr. Seamon:

In accordance with Columbia Public Schools' (CPS) Request for Proposal No. C-24043, dated October 10, 2023, Geotechnology, LLC, dba UES, is pleased to provide this drinking water sampling report for the referenced project. Our scope of services included flushing and sampling of drinking water from potable water outlets, laboratory analysis of water samples, and a letter report.

#### **SITE AND PROJECT DESCRIPTION**

The subject property consists of the existing Columbia Public Schools Mill Creek Elementary School, located southwest of the intersection of Sinclair Street and West Nifong Boulevard in Columbia, Missouri. The purpose of the drinking water sampling was to identify potable water outlets that may require remediation in accordance with the State of Missouri's *Get the Lead out of School Drinking Water Act* (RSMo 160.077).

#### **DRINKING WATER SAMPLING**

RSMo 160.077 sets standards for lead concentrations in school drinking water, stating that each Missouri school shall provide drinking water with a lead concentration level below five (5) parts per billion (ppb). This Act requires schools to conduct the inventory, sampling, remediation, and monitoring at all potable drinking water outlets used or potentially used for drinking, food preparation, and cooking or cleaning utensils.

In general conformance with the RSMo 160.077 requirements, and the Environmental Protection Agency's (EPA) *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities* manual, initial water flushing and sampling activities were conducted on January 15 and 16, 2024, and June 25 and 26, 2024, by Mr. Brad Lohrum, a Missouri-licensed lead risk assessor. Mr. Lohrum was assisted by Mr. Bob Haefner, a Missouri-licensed lead risk assessor,



and Mr. Jon Tuetken, an environmental scientist with UES. Copies of training certificates and lead licenses for Messrs. Lohrum and Haefner are included in Appendix A.

An inventory of potable drinking water outlets was provided to UES by CPS. UES personnel sampled the identified outlets utilizing the EPA’s “first-draw” methods. The identified outlets were flushed, then allowed to sit undisturbed for a period of 8-18 hours. Following this stagnation period, the first 250 milliliters (ml) of water expelled from the outlets were collected in laboratory-provided containers. Copies of the drinking water sampling forms, which include a list of sample locations, and the times and dates of flushing and sampling activities, are included in Appendix B. A floor plan depicting approximate sample locations is included as Figure 1.

Using standard chain-of-custody procedures, the drinking water samples were submitted to Teklab, Inc. of Collinsville, Illinois, an independent, certified Missouri Department of Natural Resources (MDNR) Drinking Water and National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory, for analysis of lead content via EPA Method 200.8: *Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry*.

## RESULTS

Laboratory analyses detected the presence of lead at or above 5 ppb in the following samples.

**TABLE 1  
 DRINKING WATER OUTLETS AT OR ABOVE 5 PARTS PER BILLION**

<b>Sample Number / Location and Fixture Type</b>	<b>Results</b>
MCE-02 / Kitchen Dishwash – Left Sink	19.7 ppb
MCE-09 / Office K Sink	8.4 ppb
MCE-10 / Room 222T Sink	45.3 ppb
MCE-14 / Room 220 – Left Sink	8.1 ppb
MCE-16 / Room 220 – West Sink	13.5 ppb
MCE-17 / Room 217 – East Sink	31.8 ppb
MCE-18 / Room 217 – Left Sink	28.7 ppb
MCE-19 / Room 217 – Left Bubbler	7.5 ppb
MCE-20 / Room 217 – Right Sink	14.8 ppb
MCE-22 / Room 218 – Left Sink	6.4 ppb
MCE-23 / Room 218 – Center Sink	6.1 ppb
MCE-24 / Room 218 – Center Bubbler	6.0 ppb
MCE-41 / Room 280 – Left Sink	5.0 ppb
MCE-44 / Room 280 – Right Bubbler	5.1 ppb
MCE-68 / Room 127 Sink	7.4 ppb
MCE-71 / Room 121 Sink	28.1 ppb
MCE-73 / Room 120 Sink	33.7 ppb
MCE-74 / Room 120 Bubbler	8.7 ppb



UES personnel returned to the site on June 25 and 26, 2024, to collect a water sample from the sink located in Office K (MCE-09-2) for laboratory analysis following the completion of remediation activities. The result of the water sample analysis was below 5 ppb.

UES will not be able to represent that the site contains no lead-bearing water outlets beyond those detected or observed by UES during flushing and sampling activities. Copies of the drinking water analytical results are included in Appendix C.

## RECOMMENDATIONS

Our recommendations are summarized below:

- It is our understanding that the remaining outlets identified in Table 1 that were not resampled have either been removed, marked as non-potable, or have otherwise been taken out of service. Should these fixtures be put back into service following remediation activities, or if replacement fixtures are to be put into service, further sampling and testing should be conducted.

\* \* \* \* \*

The following attachments are included in and complete this report:

- |            |  |
|------------|--|
| Figure 1   | - Drinking Water Sample Locations                          |
| Appendix A | - Certificates and Licenses of Environmental Professionals |
| Appendix B | - Drinking Water Sampling Forms                            |
| Appendix C | - Drinking Water Laboratory Data Sheets                    |
| Appendix D | - Limitations of Report                                    |

\* \* \* \* \*

We appreciate the opportunity to provide our professional environmental consulting services to Columbia Public Schools on this project. If you have any questions or comments, please contact me at (314) 997-7440.

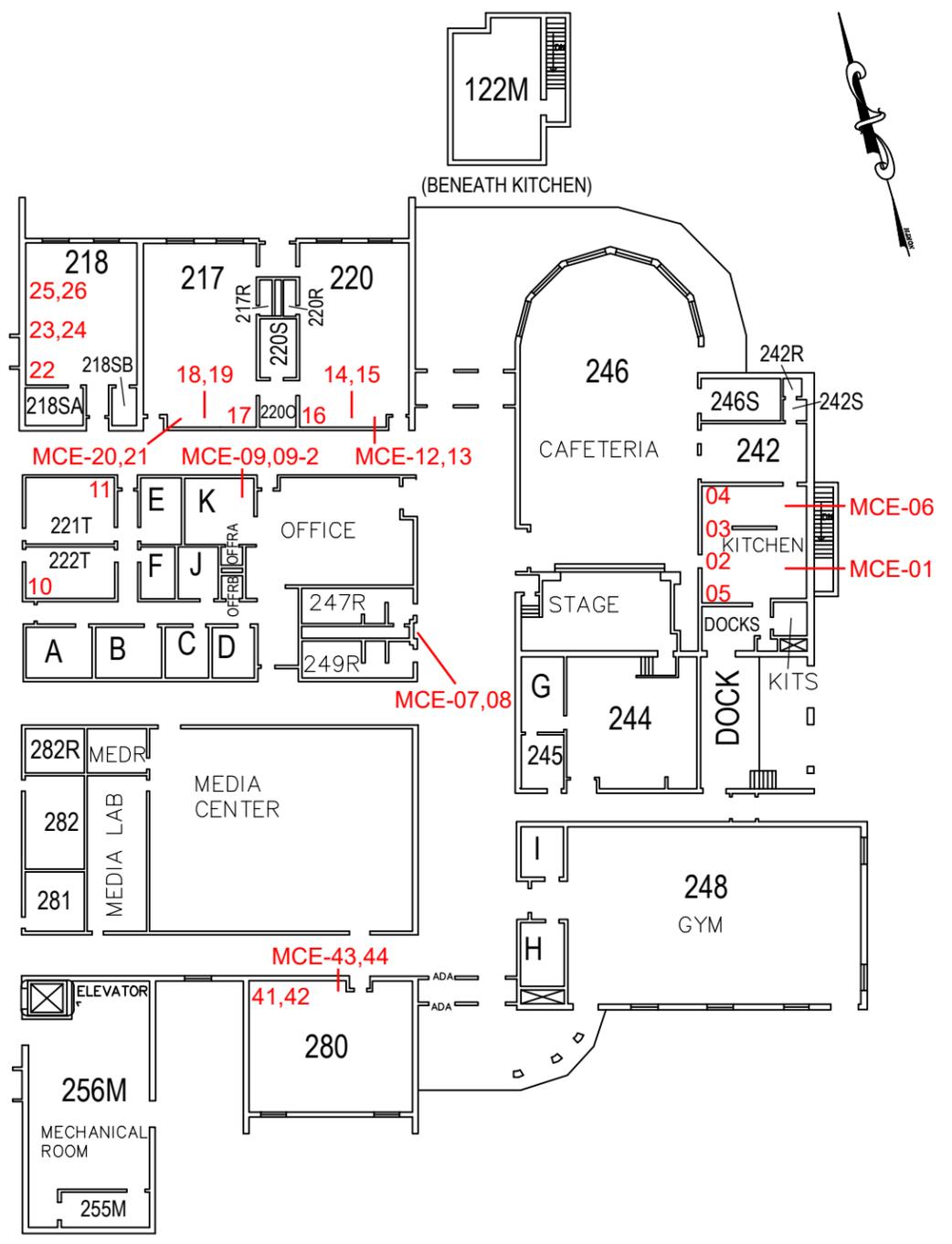
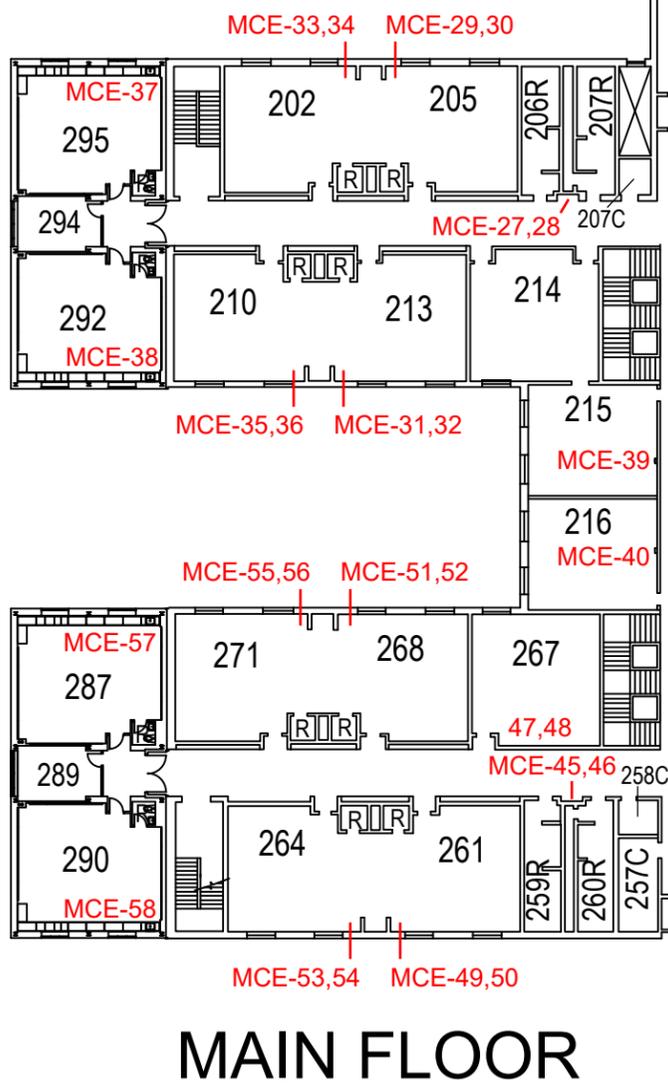
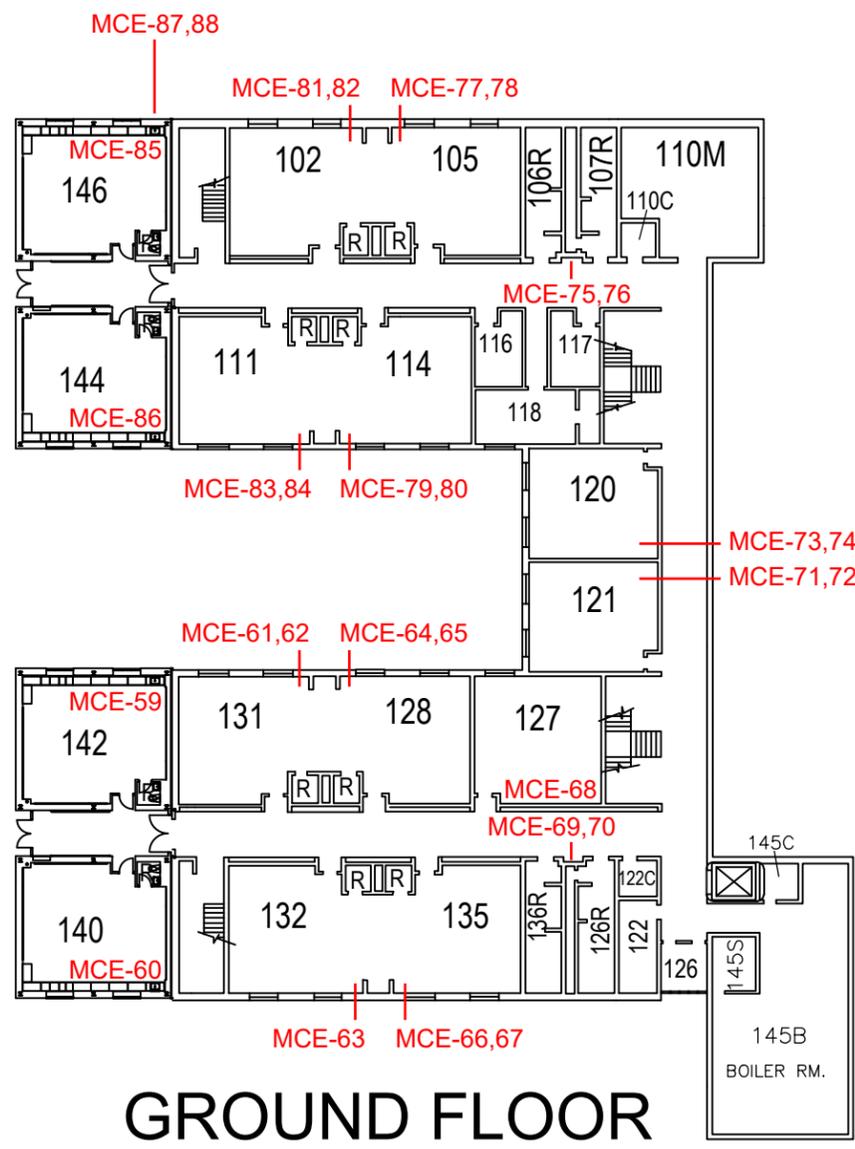
Very truly yours,

**UES**

A handwritten signature in blue ink that reads "Bradley J. Lohrum".

Bradley J. Lohrum  
Project Manager

BJL/MSR:bjl/jsj



**NOTES**

1. Drawing not to scale.
2. Drawing adapted from "Mill Creek Elementary Floor Plan", provided by the client, dated 08/20/2013.
3. Sample locations were identified in the field relative to building features and are approximate only.

Drawn By: BJJ	Ck'd By: BJJ	App'vd By: MSR
Date: 9-16-24	Date: 9-16-24	Date: 9-16-24
		
2200 West Nifong Boulevard Columbia, Missouri		
<b>DRINKING WATER          SAMPLE LOCATIONS</b>		
Project Number J044517.01	<b>FIGURE 1</b>	



## **APPENDIX A**

### **CERTIFICATES AND LICENSES OF ENVIRONMENTAL PROFESSIONALS**

COLLEGE FOR  
PUBLIC HEALTH & SOCIAL JUSTICE

SAINT LOUIS UNIVERSITY

CENTER FOR ENVIRONMENTAL EDUCATION AND TRAINING

verifies that

**Bradley Lohrum**

817 S Sappington Road, Crestwood, MO 63126

has attended 8 contact hours of training and successfully passed an examination

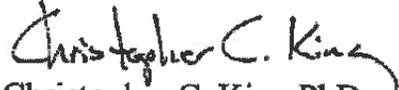
**Lead Risk Assessor Refresher**

St. Louis, MO

Certificate # CEET 325 - 12/12/2022 - 189152

Examination Date: 12/12/2022

CEUs: 0.8

  
Christopher C. King PhD

Director, Center for Environmental  
Education and Training

Certificate expiration is 3 years from examination date for Illinois Dept. of Public Health

Center for Environmental Education and Training, 3545 Lafayette, St. Louis, MO 63104

(314) 977-8256 [shu.edu/x39753.xml](http://shu.edu/x39753.xml)

This training course has been accredited by the Illinois Department of Public Health, and by the Missouri Department of Health & Senior Services.

**STATE OF MISSOURI**  
**DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**LEAD OCCUPATION LICENSE REGISTRATION**

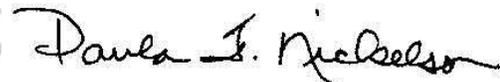
Issued to:

**Bradley J. Lohrum**

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

**Lead Risk Assessor**  
Category of License

Issuance Date: **1/20/2023**  
Expiration Date: **1/20/2025**  
License Number: **230120-300006460**



Paula F. Nickelson  
Acting Director  
Department of Health and Senior Services



# SAINT LOUIS UNIVERSITY

## CENTER FOR ENVIRONMENTAL EDUCATION AND TRAINING

verifies that

**Robert Haefner**

3951 Dover Pl, St. Louis, MO 63116

has attended 8 contact hours of training and successfully passed examination for

### Lead Risk Assessor Refresher

St. Louis, MO

Certificate # CEET 325 3/6/2023 118035  
Examination Date: 3/6/2023  
CEUs: 0.8

Rene Dulle, MBA, Director  
Center for Environmental Education & Training

Center for Environmental Education and Training | 3545 Lafayette Ave., St. Louis, MO 63104  
(314) 977-8256 | [slu.edu/public-health-social-justice/centers-institutes/ceet.php](http://slu.edu/public-health-social-justice/centers-institutes/ceet.php)

The training course has been accredited by the Missouri Dept. of Health and Senior Services, and by the Illinois Dept. of Public Health. Certificate expiration is 3 years from examination date for Illinois Dept. of Public Health.

**STATE OF MISSOURI**  
**DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**LEAD OCCUPATION LICENSE REGISTRATION**

Issued to:

**Robert J. Haefner**

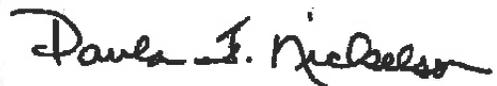
The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

**Lead Risk Assessor**  
**Category of License**

Issuance Date: **3/28/2023**

Expiration Date: **3/30/2025**

License Number: **150330:300004672**



Paula F. Nickelson  
Acting Director  
Department of Health and Senior Services

Lead Licensing Program, PO Box 570, Jefferson City, MO 65102

**STATE OF MISSOURI**  
**DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**Lead Abatement Contractor License**

The person, firm or corporation whose name appears on this certificate is licensed as a Lead Abatement Contractor as set forth in the Missouri Revised Statutes 701.300-701.338 and 19 CSR 30-70.180, as long as not suspended or revoked, and is hereby authorized to engage in lead-bearing substance activities.

Issued to:

**Geotechnology, LLC**

**11816 Lackland Road, Suite 150**  
**St. Louis, MO 63146**

Issuance Date: 2/8/2022  
Expiration Date: 2/8/2024  
License Number: 060208-0095



*Donald G. Kauerauf*

Donald G. Kauerauf  
Director  
Department of Health and Senior Services

**STATE OF MISSOURI**  
**DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**Lead Abatement Contractor License**

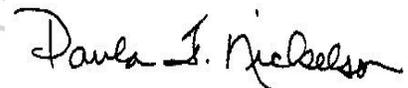
The person, firm or corporation whose name appears on this certificate is licensed as a Lead Abatement Contractor as set forth in the Missouri Revised Statutes 701.300-701.338 and 19 CSR 30-70.180, as long as not suspended or revoked, and is hereby authorized to engage in lead-bearing substance activities.

Issued to:

**Geotechnology LLC (UES)**

**11816 Lackland Rd Suite 150  
St. Louis, MO 63146**

Issuance Date: **2/28/2024**  
Expiration Date: **2/28/2026**  
License Number: **240229-4652**



Paula F. Nickelson  
Director  
Department of Health and Senior Services



## **APPENDIX B**

### **DRINKING WATER SAMPLING FORMS**



**DRINKING WATER SAMPLING FORM**

Project Name: Columbia Public Schools Water  
Sampling and Reporting Services  
Building Name: Mill Creek Elementary

Project Number: J044517.01  
Address: 2200 West Nifong Boulevard  
Columbia, Missouri

Sample ID	Fixture Type	Location	Flushed By - Date - Time	Sampled By - Date - Time
MCE-01	S	Kitchen Food Prep	BJL - 1/15/24 - 17:57	JFT - 1/16/24 - 2:49
MCE-02	S	Kitchen Dishwash - Left	JFT - 1/15/24 - 17:57	RJH - 1/16/24 - 2:49
MCE-03	S	Kitchen Dishwash - Center	JFT - 1/15/24 - 17:57	RJH - 1/16/24 - 2:49
MCE-04	S	Kitchen Dishwash - Right	JFT - 1/15/24 - 17:57	RJH - 1/16/24 - 2:49
MCE-05	S	Kitchen Rinse Station	JFT - 1/15/24 - 17:57	RJH - 1/16/24 - 2:49
MCE-06	ICE	Kitchen	RJH - 1/15/24 - 17:57	JFT - 1/16/24 - 2:50
MCE-07	WF	Hallway at Rms. 247/249 - Left	RJH - 1/15/24 - 17:59	RJH - 1/16/24 - 2:52
MCE-08	WF	Hallway at Rms. 247/249 - Right	JFT - 1/15/24 - 17:59	JFT - 1/16/24 - 2:52
MCE-09	S	Office K	RJH - 1/15/24 - 18:00	RJH - 1/16/24 - 2:53
MCE-10	S	Room 222T	JFT - 1/15/24 - 18:02	RJH - 1/16/24 - 2:54
MCE-11	S	Room 221T	RJH - 1/15/24 - 18:02	JFT - 1/16/24 - 2:54
MCE-12	S	Room 220 - Left	RJH - 1/15/24 - 18:04	RJH - 1/16/24 - 2:57
MCE-13	B	Room 220 - Left	RJH - 1/15/24 - 18:04	RJH - 1/16/24 - 2:57
MCE-14	S	Room 220 - Right	JFT - 1/15/24 - 18:04	JFT - 1/16/24 - 2:57
MCE-15	B	Room 220 - Right	JFT - 1/15/24 - 18:04	JFT - 1/16/24 - 2:57
MCE-16	S	Room 220 - West	JFT - 1/15/24 - 18:04	RJH - 1/16/24 - 2:57
MCE-17	S	Room 217 - East	RJH - 1/15/24 - 18:06	RJH 1/16/24 - 2:59
MCE-18	S	Room 217 - Left	RJH - 1/15/24 - 18:06	RJH - 1/16/24 - 2:59
MCE-19	B	Room 217 - Left	RJH - 1/15/24 - 18:06	RJH - 1/16/24 - 2:59
MCE-20	S	Room 217 - Right	JFT - 1/15/24 - 18:06	JFT - 1/16/24 - 2:59
MCE-21	B	Room 217 - Right	JFT - 1/15/24 - 18:06	JFT - 1/16/24 - 2:59
MCE-22	S	Room 218 - Left	RJH - 1/15/24 - 18:08	JFT - 1/16/24 - 3:01
MCE-23	S	Room 218 - Center	RJH - 1/15/24 - 18:08	JFT - 1/16/24 - 3:01
MCE-24	B	Room 218 - Center	RJH - 1/15/24 - 18:08	JFT - 1/16/24 - 3:01
MCE-25	S	Room 218 - Right	JFT - 1/15/24 - 18:08	RJH - 1/16/24 - 3:01

BF=Bottle Filling  
B=Bubbler

FW=Filtered Water  
ICE=Ice Machine

S=Classroom/Other Sink  
WF=Water Fountain



# DRINKING WATER SAMPLING FORM

Project Name: Columbia Public Schools Water  
Sampling and Reporting Services  
Building Name: Mill Creek Elementary

Project Number: J044517.01  
Address: 2200 West Nifong Boulevard  
Columbia, Missouri

Sample ID	Fixture Type	Location	Flushed By - Date - Time	Sampled By - Date - Time
MCE-26	B	Room 218 - Right	JFT - 1/15/24 - 18:09	RJH - 1/16/24 - 3:01
MCE-27	WF	Hallway at Room 214 - Left	JFT - 1/15/24 - 18:10	RJH - 1/16/24 - 3:03
MCE-28	WF	Hallway at Room 214 - Right	RJH - 1/15/24 - 18:10	JFT - 1/16/24 - 3:03
MCE-29	S	Room 205	RJH - 1/15/24 - 18:12	RJH - 1/16/24 - 3:04
MCE-30	B	Room 205	RJH - 1/15/24 - 18:12	RJH - 1/16/24 - 3:04
MCE-31	S	Room 213	JFT - 1/15/24 - 18:13	JFT - 1/16/24 - 3:05
MCE-32	B	Room 213	JFT - 1/15/24 - 18:13	JFT - 1/16/24 - 3:05
MCE-33	S	Room 202	RJH - 1/15/24 - 18:14	RJH - 1/16/24 - 3:05
MCE-34	B	Room 202	RJH - 1/15/24 - 18:14	RJH - 1/16/24 - 3:05
MCE-35	S	Room 210	JFT - 1/15/24 - 18:14	JFT - 1/16/24 - 3:06
MCE-36	B	Room 210	JFT - 1/15/24 - 18:14	JFT - 1/16/24 - 3:06
MCE-37	S	Room 295	RJH - 1/15/24 - 18:15	RJH - 1/16/24 - 3:07
MCE-38	S	Room 292	RJH - 1/15/24 - 18:16	RJH - 1/16/24 - 3:08
MCE-39	S	Room 215	JFT - 1/15/24 - 18:17	RJH - 1/16/24 - 3:09
MCE-40	S	Room 216	RJH - 1/15/24 - 18:19	JFT - 1/16/24 - 3:10
MCE-41	S	Room 280 - Left	RJH - 1/15/24 - 18:21	JFT - 1/16/24 - 3:12
MCE-42	B	Room 280 - Left	RJH - 1/15/24 - 18:21	JFT - 1/16/24 - 3:12
MCE-43	S	Room 280 - Right	JFT - 1/15/24 - 18:21	RJH - 1/16/24 - 3:12
MCE-44	B	Room 280 - Right	JFT - 1/15/24 - 18:21	RJH - 1/16/24 - 3:12
MCE-45	WF	Hallway at Rms. 259/260 - Left	JFT - 1/15/24 - 18:29	JFT - 1/16/24 - 3:13
MCE-46	WF	Hallway at Rms. 259/260 - Right	JFT - 1/15/24 - 18:29	JFT - 1/16/24 - 3:13
MCE-47	S	Room 267	RJH - 1/15/24 - 18:31	RJH - 1/16/24 - 3:14
MCE-48	B	Room 267	RJH - 1/15/24 - 18:31	RJH - 1/16/24 - 3:14
MCE-49	S	Room 261	JFT - 1/15/24 - 18:32	JFT - 1/16/24 - 3:15
MCE-50	B	Room 261	JFT - 1/15/24 - 18:32	JFT - 1/16/24 - 3:15

BF=Bottle Filling  
B=Bubbler

FW=Filtered Water  
ICE=Ice Machine

S=Classroom/Other Sink  
WF=Water Fountain



# DRINKING WATER SAMPLING FORM

Project Name: Columbia Public Schools Water  
Sampling and Reporting Services  
 Building Name: Mill Creek Elementary

Project Number: J044517.01  
 Address: 2200 West Nifong Boulevard  
Columbia, Missouri

Sample ID	Fixture Type	Location	Flushed By - Date - Time	Sampled By - Date - Time
MCE-51	S	Room 268	RJH - 1/15/24 - 18:34	RJH - 1/16/24 - 3:16
MCE-52	B	Room 268	RJH - 1/15/24 - 18:34	RJH - 1/16/24 - 3:16
MCE-53	S	Room 264	JFT - 1/15/24 - 18:34	JFT - 1/16/24 -3:16
MCE-54	B	Room 264	JFT - 1/15/24 - 18:34	JFT - 1/16/24 -3:16
MCE-55	S	Room 271	RJH - 1/15/24 - 18:35	RJH - 1/16/24 - 3:17
MCE-56	B	Room 271	RJH - 1/15/24 - 18:35	RJH - 1/16/24 - 3:17
MCE-57	S	Room 287	RJH - 1/15/24 - 18:36	JFT - 1/16/24 - 3:18
MCE-58	S	Room 290	JFT - 1/15/24 - 18:36	RJH - 1/16/24 - 3:18
MCE-59	S	Room 142	RJH - 1/15/24 - 18:37	RJH - 1/16/24 - 3:21
MCE-60	S	Room 140	JFT - 1/15/24 - 18:37	JFT - 1/16/24 - 3:22
MCE-61	S	Room 131	RJH - 1/15/24 - 18:40	RJH - 1/16/24 - 3:22
MCE-62	B	Room 131	RJH - 1/15/24 - 18:40	RJH - 1/16/24 - 3:22
MCE-63	S	Room 132	JFT - 1/15/24 - 18:40	JFT - 1/16/24 - 3:23
MCE-64	S	Room 128	RJH - 1/15/24 - 18:41	RJH - 1/16/24 - 3:24
MCE-65	B	Room 128	RJH - 1/15/24 - 18:41	RJH - 1/16/24 - 3:24
MCE-66	S	Room 135	RJH - 1/15/24 - 18:42	JFT - 1/16/24 - 3:24
MCE-67	B	Room 135	RJH - 1/15/24 - 18:42	JFT - 1/16/24 - 3:24
MCE-68	S	Room 127	JFT - 1/15/24 - 18:43	RJH - 1/16/24 - 3:25
MCE-69	WF	Hallway at Rms. 126/136 - Left	RJH - 1/15/24 - 18:44	RJH - 1/16/24 - 3:26
MCE-70	WF	Hallway at Rms. 126/136 - Right	RJH - 1/15/24 - 18:44	JFT - 1/16/24 - 3:26
MCE-71	S	Room 121	RJH - 1/15/24 - 18:45	RJH - 1/16/24 - 3:27
MCE-72	B	Room 121	RJH - 1/15/24 - 18:45	RJH - 1/16/24 - 3:27
MCE-73	S	Room 120	JFT - 1/15/24 - 18:47	JFT - 1/16/24 - 3:28
MCE-74	B	Room 120	JFT - 1/15/24 - 18:47	JFT - 1/16/24 - 3:28
MCE-75	WF	Hallway at Room 117 - Left	RJH - 1/15/24 - 18:48	RJH - 1/16/24 - 3:29

BF=Bottle Filling  
 B=Bubbler

FW=Filtered Water  
 ICE=Ice Machine

S=Classroom/Other Sink  
 WF=Water Fountain



DRINKING WATER SAMPLING FORM

Project Name: Columbia Public Schools Water
Sampling and Reporting Services
Building Name: Mill Creek Elementary

Project Number: J044517.01
Address: 2200 West Nifong Boulevard
Columbia, Missouri

Table with 5 columns: Sample ID, Fixture Type, Location, Flushed By - Date - Time, and Sampled By - Date - Time. It contains 18 rows of data for samples MCE-76 through MCE-88, plus several empty rows at the bottom.

BF=Bottle Filling
B=Bubbler

FW=Filtered Water
ICE=Ice Machine

S=Classroom/Other Sink
WF=Water Fountain



## **APPENDIX C**

### **DRINKING WATER LABORATORY DATA SHEETS**

February 14, 2024

Brad Lohrum  
Geotechnology, Inc.  
11816 Lackland Road  
St. Louis, MO 63146  
TEL: (314) 997-7440  
FAX: (314) 997-2067



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** J044517.01

**WorkOrder:** 24011318

Dear Brad Lohrum:

TEKLAB, INC received 60 samples on 1/19/2024 10:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
[SHennessy@teklabinc.com](mailto:SHennessy@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

---

**Client:** Geotechnology, Inc.

**Work Order:** 24011318

**Client Project:** J044517.01

**Report Date:** 14-Feb-24

---

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

Client: Geotechnology, Inc.

Work Order: 24011318

Client Project: J044517.01

Report Date: 14-Feb-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** Geotechnology, Inc.

**Work Order:** 24011318

**Client Project:** J044517.01

**Report Date:** 14-Feb-24

---

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



## Case Narrative

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24011318

Client Project: J044517.01

Report Date: 14-Feb-24

Cooler Receipt Temp: N/A °C

### Locations

#### Collinsville

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

#### Collinsville Air

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

#### Springfield

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

#### Chicago

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

#### Kansas City

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24011318

Client Project: J044517.01

Report Date: 14-Feb-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24011318

Client Project: J044517.01

Report Date: 14-Feb-24

Matrix: DRINKING WATER

Sample ID	Client Sample ID	Certification	Qual	RL	Result	Units	DF	Date Analyzed	Date Collected
<b>EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)</b>									
<b>Lead</b>									
24011318-001A	RBE-42	NELAP		1.0	1.1	µg/L	1	02/05/2024 16:43	01/16/2024 2:25
24011318-002A	RBE-43	NELAP		1.0	< 1.0	µg/L	5	02/12/2024 15:52	01/16/2024 1:55
24011318-003A	MCE-01	NELAP		1.0	< 1.0	µg/L	1	02/05/2024 16:47	01/16/2024 2:49
24011318-004A	MCE-02	NELAP		1.0	19.7	µg/L	1	02/05/2024 16:50	01/16/2024 2:49
24011318-005A	MCE-03	NELAP		1.0	1.7	µg/L	1	02/05/2024 16:54	01/16/2024 2:49
24011318-006A	MCE-04	NELAP		1.0	2.4	µg/L	1	02/05/2024 16:58	01/16/2024 2:49
24011318-007A	MCE-05	NELAP		1.0	< 1.0	µg/L	1	02/05/2024 17:09	01/16/2024 2:49
24011318-008A	MCE-06	NELAP		1.0	< 1.0	µg/L	1	02/05/2024 17:12	01/16/2024 2:50
24011318-009A	MCE-07	NELAP		1.0	< 1.0	µg/L	1	02/07/2024 22:01	01/16/2024 2:52
24011318-010A	MCE-08	NELAP		1.0	< 1.0	µg/L	1	02/07/2024 22:04	01/16/2024 2:52
24011318-011A	MCE-09	NELAP		1.0	8.4	µg/L	1	02/07/2024 22:08	01/16/2024 2:53
24011318-012A	MCE-10	NELAP		1.0	45.3	µg/L	1	02/07/2024 22:12	01/16/2024 2:54
24011318-013A	MCE-11	NELAP		1.0	1.3	µg/L	5	02/12/2024 16:22	01/16/2024 2:54
24011318-014A	MCE-12	NELAP		1.0	4.3	µg/L	1	02/07/2024 22:23	01/16/2024 2:57
24011318-015A	MCE-13	NELAP		1.0	1.6	µg/L	5	02/12/2024 15:56	01/16/2024 2:57
24011318-016A	MCE-14	NELAP		1.0	8.1	µg/L	1	02/07/2024 22:26	01/16/2024 2:57
24011318-017A	MCE-15	NELAP		1.0	3.4	µg/L	1	02/02/2024 14:51	01/16/2024 2:57
24011318-018A	MCE-16	NELAP		1.0	13.5	µg/L	1	02/02/2024 14:55	01/16/2024 2:57
24011318-019A	MCE-17	NELAP		1.0	31.8	µg/L	1	02/02/2024 14:59	01/16/2024 2:59
24011318-020A	MCE-18	NELAP		1.0	28.7	µg/L	1	02/02/2024 15:03	01/16/2024 2:59
24011318-021A	MCE-19	NELAP		1.0	7.5	µg/L	1	02/02/2024 16:05	01/16/2024 2:59
24011318-022A	MCE-20	NELAP		1.0	14.8	µg/L	1	02/02/2024 15:07	01/16/2024 2:59
24011318-023A	MCE-21	NELAP		1.0	1.2	µg/L	1	02/02/2024 15:36	01/16/2024 2:59
24011318-024A	MCE-22	NELAP		1.0	6.4	µg/L	1	02/02/2024 15:40	01/16/2024 3:01
24011318-025A	MCE-23	NELAP		1.0	6.1	µg/L	1	02/02/2024 15:45	01/16/2024 3:01
24011318-026A	MCE-24	NELAP		1.0	6.0	µg/L	1	02/02/2024 15:49	01/16/2024 3:01
24011318-027A	MCE-25	NELAP		1.0	4.8	µg/L	1	02/02/2024 15:53	01/16/2024 3:01
24011318-028A	MCE-26	NELAP		1.0	3.6	µg/L	5	02/12/2024 16:01	01/16/2024 3:01
24011318-029A	MCE-27	NELAP		1.0	1.7	µg/L	1	02/02/2024 15:57	01/16/2024 3:03
24011318-030A	MCE-28	NELAP		1.0	1.6	µg/L	1	02/02/2024 16:01	01/16/2024 3:03
24011318-031A	MCE-29	NELAP		1.0	2.1	µg/L	1	02/02/2024 16:30	01/16/2024 3:04
24011318-032A	MCE-30	NELAP		1.0	1.4	µg/L	1	02/02/2024 16:59	01/16/2024 3:04
24011318-033A	MCE-31	NELAP		1.0	2.1	µg/L	1	02/02/2024 16:34	01/16/2024 3:05
24011318-034A	MCE-32	NELAP		1.0	2.0	µg/L	1	02/02/2024 16:38	01/16/2024 3:05
24011318-035A	MCE-33	NELAP		1.0	2.0	µg/L	1	02/02/2024 16:42	01/16/2024 3:05
24011318-036A	MCE-34	NELAP		1.0	2.1	µg/L	1	02/02/2024 16:46	01/16/2024 3:05
24011318-037A	MCE-35	NELAP		1.0	3.0	µg/L	1	02/03/2024 10:04	01/16/2024 3:06
24011318-038A	MCE-36	NELAP		1.0	1.1	µg/L	1	02/03/2024 10:08	01/16/2024 3:06
24011318-039A	MCE-37	NELAP		1.0	1.1	µg/L	1	02/03/2024 10:12	01/16/2024 3:07
24011318-040A	MCE-38	NELAP		1.0	< 1.0	µg/L	1	02/03/2024 10:41	01/16/2024 3:08
24011318-041A	MCE-39	NELAP		1.0	3.7	µg/L	1	02/03/2024 10:45	01/16/2024 3:09
24011318-042A	MCE-40	NELAP		1.0	3.0	µg/L	1	02/03/2024 10:49	01/16/2024 3:10
24011318-043A	MCE-41	NELAP		1.0	5.0	µg/L	1	02/03/2024 10:53	01/16/2024 3:12
24011318-044A	MCE-42	NELAP		1.0	2.5	µg/L	1	02/03/2024 11:09	01/16/2024 3:12
24011318-045A	MCE-43	NELAP		1.0	2.9	µg/L	1	02/03/2024 10:57	01/16/2024 3:12
24011318-046A	MCE-44	NELAP		1.0	5.1	µg/L	1	02/03/2024 11:01	01/16/2024 3:12
24011318-047A	MCE-45	NELAP		1.0	1.1	µg/L	1	02/03/2024 11:05	01/16/2024 3:13
24011318-048A	MCE-46	NELAP		1.0	< 1.0	µg/L	1	02/03/2024 11:34	01/16/2024 3:13



## Laboratory Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24011318

Client Project: J044517.01

Report Date: 14-Feb-24

Matrix: DRINKING WATER

Sample ID	Client Sample ID	Certification	Qual	RL	Result	Units	DF	Date Analyzed	Date Collected
<b>EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)</b>									
<b>Lead</b>									
24011318-049A	MCE-47	NELAP		1.0	3.7	µg/L	1	02/03/2024 11:38	01/16/2024 3:14
24011318-050A	MCE-48	NELAP		1.0	1.6	µg/L	1	02/03/2024 12:03	01/16/2024 3:14
24011318-051A	MCE-49	NELAP		1.0	2.4	µg/L	1	02/03/2024 11:42	01/16/2024 3:15
24011318-052A	MCE-50	NELAP		1.0	2.0	µg/L	1	02/03/2024 11:47	01/16/2024 3:15
24011318-053A	MCE-51	NELAP		1.0	2.5	µg/L	1	02/03/2024 11:51	01/16/2024 3:16
24011318-054A	MCE-52	NELAP		1.0	1.1	µg/L	5	02/09/2024 9:57	01/16/2024 3:16
24011318-055A	MCE-53	NELAP		1.0	3.1	µg/L	1	02/03/2024 11:55	01/16/2024 3:16
24011318-056A	MCE-54	NELAP		1.0	1.3	µg/L	1	02/03/2024 11:59	01/16/2024 3:16
24011318-057A	MCE-55	NELAP		1.0	2.6	µg/L	1	02/03/2024 12:28	01/16/2024 3:17
24011318-058A	MCE-56	NELAP		1.0	1.7	µg/L	1	02/03/2024 12:32	01/16/2024 3:17
24011318-059A	MCE-57	NELAP		1.0	< 1.0	µg/L	1	02/03/2024 12:36	01/16/2024 3:18
24011318-060A	MCE-58	NELAP		1.0	1.2	µg/L	1	02/03/2024 12:40	01/16/2024 3:18



# Receiving Check List

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24011318

Client Project: J044517.01

Report Date: 14-Feb-24

Carrier: Employee

Received By: LM

Completed by:

*Amber Dilallo*

Reviewed by:

*Ellie Hopkins*

On:

19-Jan-24

Amber Dilallo

On:

19-Jan-24

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- |   |  |                              |  |                                  |
|---|--|------------------------------|--|----------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  | Not Present <input type="checkbox"/>   | Temp °C <b>N/A</b>               |
| Type of thermal preservation?                           | None <input checked="" type="checkbox"/> | Ice <input type="checkbox"/> | Blue Ice <input type="checkbox"/>      | Dry Ice <input type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  |  |                                  |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  |  |                                  |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  |  |                                  |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  |  |                                  |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  |  |                                  |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  |  |                                  |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  |  |                                  |
| Reported field parameters measured:                     | Field <input type="checkbox"/>           | Lab <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |                                  |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/>  |  |                                  |

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- |   |   |                             |   |
|---|---|-----------------------------|---|
| Water – at least one vial per sample has zero headspace?  | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | No VOA vials <input checked="" type="checkbox"/>      |
| Water - TOX containers have zero headspace?               | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt?                       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                           |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>                |

**Any No responses must be detailed below or on the COC.**

Samples were checked for turbidity and then preserved with nitric acid upon arrival in the laboratory. - amberdilallo - 1/19/2024 11:41:14 AM

# CHAIN OF CUSTODY

pg. 66 of 74 Work order # 24011318

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

<b>Client:</b> Geotechnology, LLC <b>Address:</b> 11816 Lackland Road <b>City / State / Zip:</b> St. Louis, MO 63146 <b>Contact:</b> Brad Lohrum <b>Phone:</b> (314) 997-7440 <b>E-Mail:</b> blohrum@teamues.com <b>Fax:</b>	<b>Samples on:</b> <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input checked="" type="checkbox"/> NO ICE <u>NA</u> °C LTG# <b>Preserved in:</b> <input checked="" type="checkbox"/> LAB <input type="checkbox"/> FIELD <b>FOR LAB USE ONLY</b> <b>Lab Notes</b>  <b>Client Comments:</b>
--	---

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous?  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

Project Name/Number		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED															
J044517.01		Brad Lohrum		Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	DW - Lead E200.8											
Results Requested	Billing Instructions	# and Type of Containers																			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		UNPRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	OTHER												
Lab Use Only	Sample Identification	Date/Time Sampled																			
24011318-001	RBE-42	1/16/24 2:25		1							X										
002	RBE-43	1:55		1							X										
003	MCE-01	2:49		1							X										
004	MCE-02			1							X										
005	03			1							X										
006	04			1							X										
007	05			1							X										
008	06	2:50		1							X										
009	07	2:52		1							X										
010	08	+		1							X										

Relinquished By	Date/Time	Received By	Date/Time
<i>Brad Lohrum</i>	1/18/24	<i>R. J. King</i>	1/18/24
<i>R. J. King</i>	1/19/24 10:00	<i>Sammy</i>	1/19/24 1000

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions.

BottleOrder: 80481













February 12, 2024

Brad Lohrum  
Geotechnology, Inc.  
11816 Lackland Road  
St. Louis, MO 63146  
TEL: (314) 997-7440  
FAX: (314) 997-2067



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** J044517.01

**WorkOrder:** 24011323

Dear Brad Lohrum:

TEKLAB, INC received 28 samples on 1/19/2024 10:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Patrick Riley  
Project Manager  
(618)344-1004 ex 44  
[patrickriley@teklabinc.com](mailto:patrickriley@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

---

**Client:** Geotechnology, Inc.

**Work Order:** 24011323

**Client Project:** J044517.01

**Report Date:** 12-Feb-24

---

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	8
Chain of Custody	Appended

Client: Geotechnology, Inc.

Work Order: 24011323

Client Project: J044517.01

Report Date: 12-Feb-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** Geotechnology, Inc.

**Work Order:** 24011323

**Client Project:** J044517.01

**Report Date:** 12-Feb-24

---

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

Client: Geotechnology, Inc.

Work Order: 24011323

Client Project: J044517.01

Report Date: 12-Feb-24

Cooler Receipt Temp: NA °C

---

**Locations**

---

**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425

**Phone** (618) 344-1004

**Fax** (618) 344-1005

**Email** jhriley@teklabinc.com

---

**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425

**Phone** (618) 344-1004

**Fax** (618) 344-1005

**Email** EHurley@teklabinc.com

---

**Springfield**

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415

**Phone** (217) 698-1004

**Fax** (217) 698-1005

**Email** KKlostermann@teklabinc.com

---

**Chicago**

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515

**Phone** (630) 324-6855

**Fax**

**Email** arenner@teklabinc.com

---

**Kansas City**

**Address** 8421 Nieman Road  
Lenexa, KS 66214

**Phone** (913) 541-1998

**Fax** (913) 541-1998

**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24011323

Client Project: J044517.01

Report Date: 12-Feb-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



## Laboratory Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24011323

Client Project: J044517.01

Report Date: 12-Feb-24

Matrix: DRINKING WATER

Sample ID	Client Sample ID	Certification	Qual	RL	Result	Units	DF	Date Analyzed	Date Collected
<b>EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)</b>									
<b>Lead</b>									
24011323-001A	MCE-59	NELAP		1.0	< 1.0	µg/L	1	02/03/2024 12:57	01/16/2024 3:21
24011323-002A	MCE-60	NELAP		1.0	1.3	µg/L	1	02/03/2024 12:44	01/16/2024 3:22
24011323-003A	MCE-61	NELAP		1.0	3.9	µg/L	1	02/03/2024 12:48	01/16/2024 3:22
24011323-004A	MCE-62	NELAP		1.0	1.6	µg/L	1	02/03/2024 12:52	01/16/2024 3:22
24011323-005A	MCE-63	NELAP		1.0	3.3	µg/L	1	02/03/2024 13:30	01/16/2024 3:23
24011323-006A	MCE-64	NELAP		1.0	2.8	µg/L	1	02/03/2024 13:34	01/16/2024 3:24
24011323-007A	MCE-65	NELAP		1.0	1.2	µg/L	1	02/03/2024 13:38	01/16/2024 3:24
24011323-008A	MCE-66	NELAP		1.0	4.1	µg/L	1	02/03/2024 13:42	01/16/2024 3:25
24011323-009A	MCE-67	NELAP		1.0	2.4	µg/L	1	02/03/2024 13:46	01/16/2024 3:26
24011323-010A	MCE-68	NELAP		1.0	7.4	µg/L	1	02/03/2024 13:50	01/16/2024 3:26
24011323-011A	MCE-69	NELAP		1.0	1.4	µg/L	1	02/03/2024 13:58	01/16/2024 3:26
24011323-012A	MCE-70	NELAP		1.0	< 1.0	µg/L	1	02/03/2024 13:54	01/16/2024 3:26
24011323-013A	MCE-71	NELAP		1.0	28.1	µg/L	1	02/03/2024 14:23	01/16/2024 3:27
24011323-014A	MCE-72	NELAP		1.0	3.0	µg/L	1	02/03/2024 14:27	01/16/2024 3:27
24011323-015A	MCE-73	NELAP		1.0	33.7	µg/L	1	02/03/2024 14:32	01/16/2024 3:28
24011323-016A	MCE-74	NELAP		1.0	8.7	µg/L	1	02/03/2024 14:36	01/16/2024 3:28
24011323-017A	MCE-75	NELAP		1.0	3.2	µg/L	5	02/08/2024 13:41	01/16/2024 3:29
24011323-018A	MCE-76	NELAP		1.0	2.3	µg/L	5	02/08/2024 12:24	01/16/2024 3:29
24011323-019A	MCE-77	NELAP		1.0	< 1.0	µg/L	1	02/02/2024 21:04	01/16/2024 3:30
24011323-020A	MCE-78	NELAP		1.0	1.4	µg/L	1	02/02/2024 21:08	01/16/2024 3:30
24011323-021A	MCE-79	NELAP		1.0	3.4	µg/L	1	02/02/2024 21:11	01/16/2024 3:30
24011323-022A	MCE-80	NELAP		1.0	1.5	µg/L	1	02/02/2024 21:15	01/16/2024 3:30
24011323-023A	MCE-81	NELAP		1.0	3.2	µg/L	1	02/02/2024 21:19	01/16/2024 3:31
24011323-024A	MCE-82	NELAP		1.0	1.8	µg/L	1	02/02/2024 21:22	01/16/2024 3:31
24011323-025A	MCE-83	NELAP		1.0	2.7	µg/L	1	02/02/2024 21:26	01/16/2024 3:32
24011323-026A	MCE-84	NELAP		1.0	< 1.0	µg/L	1	02/02/2024 21:30	01/16/2024 3:32
24011323-027A	MCE-85	NELAP		1.0	3.3	µg/L	1	02/09/2024 15:40	01/16/2024 3:33
24011323-028A	MCE-86	NELAP		1.0	1.1	µg/L	1	02/06/2024 3:12	01/16/2024 3:33



# Receiving Check List

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24011323

Client Project: J044517.01

Report Date: 12-Feb-24

Carrier: Employee

Received By: MEK

Completed by: *Mary E. Kemp*  
On: 19-Jan-24  
Mary E Kemp

Reviewed by: *Ellie Hopkins*  
On: 19-Jan-24  
Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **NA**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

Samples were checked for turbidity and then preserved with nitric acid upon arrival in the laboratory. - MaryKemp - 1/19/2024 11:42:57 AM







July 11, 2024

Brad Lohrum  
Geotechnology, Inc.  
11816 Lackland Road  
St. Louis, MO 63146  
TEL: (314) 997-7440  
FAX: (314) 997-2067



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** J044517.01

**WorkOrder:** 24062353

Dear Brad Lohrum:

TEKLAB, INC received 57 samples on 6/28/2024 3:50:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Patrick Riley  
Project Manager  
(618)344-1004 ex 44  
[patrickriley@teklabinc.com](mailto:patrickriley@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

---

**Client:** Geotechnology, Inc.

**Work Order:** 24062353

**Client Project:** J044517.01

**Report Date:** 11-Jul-24

---

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Receiving Check List	9
Chain of Custody	Appended

Client: Geotechnology, Inc.

Work Order: 24062353

Client Project: J044517.01

Report Date: 11-Jul-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** Geotechnology, Inc.

**Work Order:** 24062353

**Client Project:** J044517.01

**Report Date:** 11-Jul-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



## Case Narrative

<http://www.teklabinc.com/>

**Client:** Geotechnology, Inc.

**Work Order:** 24062353

**Client Project:** J044517.01

**Report Date:** 11-Jul-24

**Cooler Receipt Temp:** NA °C

---

### Locations

---

#### Collinsville

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

---

#### Collinsville Air

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

---

#### Springfield

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

---

#### Chicago

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

---

#### Kansas City

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24062353

Client Project: J044517.01

Report Date: 11-Jul-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24062353

Client Project: J044517.01

Report Date: 11-Jul-24

Matrix: DRINKING WATER

Sample ID	Client Sample ID	Certification	Qual	RL	Result	Units	DF	Date Analyzed	Date Collected
<b>EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)</b>									
<b>Lead</b>									
24062353-001A	SMS-01-2	NELAP		1.0	4.6	µg/L	1	07/03/2024 17:08	06/26/2024 15:07
24062353-002A	SMS-02-2	NELAP		1.0	3.5	µg/L	1	07/03/2024 17:23	06/26/2024 15:08
24062353-003A	SMS-58-2	NELAP		1.0	7.5	µg/L	1	07/03/2024 17:26	06/26/2024 15:11
24062353-004A	SMS-59-2	NELAP		1.0	3.3	µg/L	1	07/03/2024 17:30	06/26/2024 15:12
24062353-005A	SMS-60-2	NELAP		1.0	8.7	µg/L	1	07/03/2024 17:34	06/26/2024 15:13
24062353-006A	SMS-61-2	NELAP		1.0	6.9	µg/L	1	07/03/2024 17:37	06/26/2024 15:14
24062353-007A	SMS-62-2	NELAP		1.0	7.4	µg/L	1	07/08/2024 22:34	06/26/2024 15:15
24062353-008A	SMS-74-2	NELAP		1.0	1.9	µg/L	1	07/03/2024 17:52	06/26/2024 15:18
24062353-009A	PKE-66-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 17:56	06/26/2024 15:52
24062353-010A	PKE-67-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:10	06/26/2024 15:52
24062353-011A	PKE-70-2	NELAP		1.0	2.2	µg/L	1	07/03/2024 18:14	06/26/2024 15:55
24062353-012A	RBE-08-2	NELAP		1.0	1.3	µg/L	1	07/03/2024 18:18	06/26/2024 16:06
24062353-013A	RBE-11-2	NELAP		1.0	1.6	µg/L	1	07/03/2024 18:21	06/26/2024 16:07
24062353-014A	FES-52-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:25	06/26/2024 16:16
24062353-015A	BRH-82	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:29	06/26/2024 16:33
24062353-016A	BRH-83	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:33	06/26/2024 16:36
24062353-017A	MCE-09-2	NELAP		1.0	1.3	µg/L	1	07/08/2024 22:45	06/26/2024 16:51
24062353-018A	MCE-87	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 18:58	06/26/2024 16:54
24062353-019A	MCE-88	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:02	06/26/2024 16:54
24062353-020A	RBH-30-2	NELAP		1.0	12.4	µg/L	1	07/03/2024 19:05	06/26/2024 17:17
24062353-021A	RBH-103	NELAP		1.0	1.9	µg/L	1	07/03/2024 19:09	06/26/2024 17:21
24062353-022A	RBH-104	NELAP		1.0	3.6	µg/L	1	07/03/2024 19:13	06/26/2024 17:21
24062353-023A	RBH-105	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:16	06/26/2024 17:22
24062353-024A	RBH-106	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:20	06/26/2024 17:22
24062353-025A	NHE-10-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:24	06/26/2024 17:44
24062353-026A	NHE-16-2	NELAP		1.0	3.7	µg/L	1	07/03/2024 19:28	06/26/2024 17:46
24062353-027A	CRE-70	NELAP		1.0	< 1.0	µg/L	1	07/05/2024 12:13	06/26/2024 18:01
24062353-028A	CRE-71	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 19:53	06/26/2024 18:03
24062353-029A	RAC-08-2	NELAP		1.0	13.2	µg/L	1	07/03/2024 19:57	06/26/2024 18:20
24062353-030A	SBE-02-2	NELAP		1.0	4.6	µg/L	1	07/03/2024 20:01	06/26/2024 18:35
24062353-031A	LSE-06-2	NELAP		1.0	2.1	µg/L	1	07/03/2024 20:04	06/26/2024 18:54
24062353-032A	JMS-11-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:08	06/26/2024 19:07
24062353-033A	EF5-01-2	NELAP		1.0	6.4	µg/L	1	07/03/2024 20:12	06/26/2024 19:19
24062353-034A	HHS-18-2	NELAP		1.0	2.7	µg/L	1	07/03/2024 20:15	06/26/2024 19:32
24062353-035A	OMS-08-2	NELAP		1.0	< 1.0	µg/L	1	07/05/2024 12:35	06/26/2024 19:55
24062353-036A	OMS-10-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:41	06/26/2024 19:56
24062353-037A	OMS-12-2	NELAP		1.0	1.1	µg/L	1	07/03/2024 20:45	06/26/2024 19:57
24062353-038A	OMS-17-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:48	06/26/2024 20:00
24062353-039A	OMS-20-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:52	06/26/2024 20:07
24062353-040A	OMS-39	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:56	06/26/2024 20:10
24062353-041A	OMS-40	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 20:59	06/26/2024 20:10
24062353-042A	OMS-23-2	NELAP		1.0	< 1.0	µg/L	1	07/05/2024 12:46	06/26/2024 20:11
24062353-043A	OMS-24-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 21:25	06/26/2024 20:11
24062353-044A	OMS-29-2	NELAP		1.0	5.6	µg/L	1	07/03/2024 21:29	06/26/2024 20:13
24062353-045A	EBE-35-3	NELAP		1.0	17.7	µg/L	1	07/03/2024 21:32	06/26/2024 20:39
24062353-046A	EBE-63	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 21:36	06/26/2024 20:43
24062353-047A	BHS-83-2	NELAP		1.0	17.6	µg/L	1	07/08/2024 23:07	06/26/2024 21:10
24062353-048A	BHS-122-2	NELAP		1.0	4.3	µg/L	1	07/03/2024 21:51	06/26/2024 21:20



# Laboratory Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24062353

Client Project: J044517.01

Report Date: 11-Jul-24

Matrix: DRINKING WATER

Sample ID	Client Sample ID	Certification	Qual	RL	Result	Units	DF	Date Analyzed	Date Collected
<b>EPA 600 4.1.4, 200.8 R5.4, METALS BY ICPMS (TOTAL)</b>									
<b>Lead</b>									
24062353-049A	BHS-125-2	NELAP		1.0	8.8	µg/L	1	07/03/2024 21:54	06/26/2024 21:20
24062353-050A	BHS-126-2	NELAP		1.0	5.9	µg/L	1	07/03/2024 22:09	06/26/2024 21:20
24062353-051A	BHS-130-2	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 22:13	06/26/2024 21:26
24062353-052A	BHS-222	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 22:16	06/26/2024 21:30
24062353-053A	BHS-223	NELAP		1.0	1.1	µg/L	1	07/03/2024 22:20	06/26/2024 21:30
24062353-054A	BHS-224	NELAP		1.0	< 1.0	µg/L	1	07/03/2024 22:24	06/26/2024 21:30
24062353-055A	BHS-225	NELAP		1.0	1.3	µg/L	1	07/03/2024 22:27	06/26/2024 21:30
24062353-056A	BHS-226	NELAP		1.0	3.0	µg/L	1	07/03/2024 22:31	06/26/2024 21:15
24062353-057A	BHS-227	NELAP		1.0	2.8	µg/L	1	07/03/2024 22:35	06/26/2024 21:15



# Receiving Check List

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 24062353

Client Project: J044517.01

Report Date: 11-Jul-24

Carrier: Craig McKinney

Received By: NR

Completed by:

Reviewed by:

On:

On:

28-Jun-24

28-Jun-24

Paul Schultz

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **NA**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

Samples were checked for turbidity and then preserved with nitric acid upon arrival in the laboratory. - pschultz - 6/28/2024 4:49:24 PM

# CHAIN OF CUSTODY

pg. 2 of 6 Work order # 24062553

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

<b>Client:</b> Geotechnology, LLC <b>Address:</b> 11816 Lackland Road <b>City / State / Zip:</b> St. Louis, MO 63146 <b>Contact:</b> Brad Lohrum <b>Phone:</b> (314) 997-7440 <b>E-Mail:</b> blohrum@teamues.com <b>Fax:</b>	<b>Samples on:</b> <input checked="" type="checkbox"/> ICE <input checked="" type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE _____ °C LTG# _____ <b>Preserved in:</b> <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <b>FOR LAB USE ONLY</b> <b>Lab Notes</b>  <b>Client Comments:</b>
--	---

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous?  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

Project Name/Number		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED															
J044517.01		Brad Lohrum		Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	DW - Lead E200.8											
Results Requested	Billing Instructions	# and Type of Containers																			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other _____ <input type="checkbox"/> 3 Day (50% Surcharge)		UNPRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	OTHER												
Lab Use Only	Sample Identification	Date/Time Sampled																			
	04062553-011 PKE-70-2	6/26/24 3:55	1								X										
	-012 RBE-08-2	4:06	1								X										
	-013 RBE-11-2	4:07	1								X										
	-014 FES-52-2	4:16	1								X										
	-015 BRH-82	4:33	1								X										
	-016 BRH-83	4:36	1								X										
	-017 MCE-09-2	4:51	1								X										
	-018 MCE-87	4:54	1								X										
	-019 MCE-88	+	1								X										
	-020 RBH-30-2	+	1								X										
Relinquished By		Date/Time		Received By		Date/Time															
Brad Lohrum		6/27/24 17:30		Mick Reed		6/28/24 1400															
		6/28/24 1350				6/28/24 1550															

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions.

Bottle Order: 80481





## **APPENDIX D**

### **LIMITATIONS OF REPORT**

## **ENVIRONMENTAL SAMPLING LIMITATIONS OF REPORT**

1. The Report has been prepared on behalf of and for the exclusive use of the addressee, solely for use in documenting specific sample results. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of UES.
2. The sampling was performed in accordance with generally accepted practices of other consultants undertaking similar projects at the same time and in the same geographical area, and UES endeavored to observe that degree of care and skill ordinarily exercised by other consultants under similar circumstances and conditions. The findings and conclusions stated herein must be considered not as scientific certainties, but rather as professional opinions concerning the significance of the limited data gathered during the course of the project. UES does not and cannot represent that the site contains no hazardous waste or material, or other latent condition beyond that observed by UES.
3. In the event that information is developed relative to environmental or hazardous waste or material issues at the site and not contained in this report, such information shall be brought to UES' attention. UES will evaluate such information and, based on this evaluation, may modify the conclusions stated in this Report.
4. The conclusions and recommendations contained in this Report are based in part upon the data obtained from a limited number of water samples. The identified presence of contaminated water is limited to the extent that they could be identified by instrumentation and sampling and testing. There is a potential for contaminated water above the indicated concentrations to occur elsewhere on the site. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, and/or if changes are made in regulations, it will be necessary to reevaluate the conclusions and recommendations of this report.
5. If quantitative laboratory testing was performed as part of the assessment by an outside laboratory, UES has relied upon the data provided, and has not conducted an independent evaluation of the reliability to these data.
6. Chemical analyses have been performed for specific parameters during the course of this sampling as described in the text. Do not assume that a given analyte is not present at the site simply because it was not present at the test locations. The analyte may exist on the site where tests were not performed. In addition, it should be noted that additional chemical constituents not tested for during the sampling could be present in water at the site.